

PERMITTEE: City of Middletown
82 Berlin Street
Middletown, CT 60457

PERMIT NO.: DIV-200502327

TOWN: Middletown and Middlefield

WATERS: Ground water, Mount Higby Reservoirs, and Laurel Brook Reservoir

Pursuant to Connecticut General Statutes section 22a-368, City of Middletown (the "permittee") is hereby authorized to divert the waters of the state at the John S. Roth Wellfield and the Mount Higby Reservoir complex (the "site") in accordance with permittee's application dated October 25, 2005, filed with this Department on October 27, 2005 and described herein. The purpose of the diversion is to continue to provide adequate water supply to operate the municipal water system.

AUTHORIZED ACTIVITY

The permittee is authorized to withdraw surface and ground waters as specified below in accordance with the submittal dated October 25, 2005; the Water Supply Plan approved on May 17, 2006; with plans entitled "City of Middletown" dated October 18, 2005 and prepared by Maguire Group Inc., and other documentation submitted as part of the application.

SURFACE WATER RESOURCES

Laurel Brook Reservoir, emergency, 0.75 MGD

Mount Higby Reservoir, active, 3.24 MGD

The Mount Higby Reservoir Complex is connected as follows: Reservoir Number 3 flows into a 30" pipe into Reservoir Number 2, Reservoir Number 2 flows over a low spillway into Reservoir Number 1, Adder Reservoir flows into a 20" pipe then into a concrete channel (this channel can be closed off and water will flow into a natural channel to Falls Brook) to a culvert that flows into Reservoir Number 1, Reservoir Number 1 has spillway and a 36-inch blowoff pipe that discharges to a natural channel then to Roaring Brook to Falls Brook. Reservoirs 1, 2, and 3 are also connected by a 12" pipe, which can be used collectively or independently, set below the water table for emergency use. The main intake structure from Reservoir Number 1 to the treatment facility is a 20" pipe.

JOHN S. ROTH WELLFIELD

Individual well withdrawals shall not exceed the following:

Well No. 1, active, 400 GPM, 0.58 MGD

Well No. 2A, active, 775 GPM, 1.12 MGD

Well No. 3, active, 500 GPM, 0.72 MGD

Well No. 4A, active, 550 GPM, 0.79 MGD

Well No. 5,	active,	425 GPM,	0.61 MGD
Well No. 6,	active,	575 GPM,	0.83 MGD
Well No. 7,	active,	770 GPM,	1.11 MGD
Well No. 8,	active,	930 GPM,	1.34 MGD
Well No. 9,	active,	900 GPM,	1.30 MGD
Well No. 10,	active,	900 GPM,	1.30 MGD

The total combined daily withdrawal from all wells in the John S. Roth Wellfield shall not exceed 9.00 MGD.

PERMITTEE'S FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THIS PERMIT SHALL SUBJECT PERMITTEE AND PERMITTEE'S CONTRACTOR(S) TO ENFORCEMENT ACTIONS AND PENALTIES AS PROVIDED BY LAW.

SPECIAL CONDITIONS

- Metering of Withdrawals.** The permittee shall maintain totalizing flow meters to measure the amount of water withdrawn from each source, Well nos. 1,2A,3,4A,5,6,7,8,9,10, and Mount Higby Reservoir, Laurel Brook Reservoir, and shall for the duration of this authorization continuously operate and maintain such meters. In the event of meter malfunction or breakage, the permittee shall repair or replace such meter within 72 hours.
- Daily Withdrawal Record.** The permittee shall maintain a daily record of the meter readings indicating the total volume of water in gallons withdrawn from each source, Well nos. 1,2A,3,4A,5,6,7,8,9,10, and Mount Higby Reservoir, that day. The daily record shall also record the typical hours of operation, the time of meter readings, and denote and explain any instances in which the diversion of water exceeded the authorized withdrawal limitation(s) specified in this permit. A copy of the daily record of withdrawals shall be included in the Annual Report to the Commissioner required by Special Condition #8 of this permit.
- Leak Detection.** Every five years, based upon the schedule below, the permittee shall conduct a system wide comprehensive leak detection survey of the water distribution system and repair any leaks found. The leak detection survey shall follow standards and criteria contained within AWWA Manual M36 as may be amended or revised. No later than January 15, of the following year, the permittee shall report to the Commissioner all actions taken pursuant to the leak detection survey, including the number of mile of main surveyed, survey techniques and methodology, leaks found and repairs made. The permittee shall undertake such leak detection surveys on or before March 30, 2014, March 30, 2019 and March 30, 2024. Such report shall be signed by the permittee and the individual(s) responsible for actually preparing such record, each of whom shall certify in writing in accordance with General Condition #11.

4. **Long-range Water Conservation Plan.** The permittee shall implement its Long-range Water Conservation Plan, as described in the permittee's application and in accordance with the permittee's Water Supply Plan as approved pursuant to CGS Section 25-32d and any amendments or updates thereto. The permittee shall maintain a summary of all actions taken each year pursuant to the Long-range Water Conservation Plan and a description of the estimated or actual water savings achieved. A copy of this summary shall be included in the Annual Report to the Commissioner required by Special Condition #8 of this permit.
5. **Stream Gaging, Monitoring and Reporting.** The permittee shall within 120 days of issuance of this permit, install and maintain permanent, durable staff gages in Roaring Brook (below Reservoir Number 1) and Falls Brook (below Adder Reservoir) for the purpose of monitoring stream flow. The permittee shall provide in writing to the Department within 60 days of the issuance of this permit the exact location and design of the gages. The permittee shall develop a rating curve for the gages and shall provide a copy of such rating curves to the Department within one 120 days of the issuance of this permit. Stream gaging, calibration of the gages, and stream flow measurements shall conform to the procedures described in the Measurement and Computation of Stream Flow (Volumes 1 & 2), U.S. Geological Survey Water-Supply Paper 2175, Rantz, S.E. et al, 1982. The permittee shall maintain the gage for the duration of this permit, including re-calibration and development of a new rating curve as field conditions warrant. The permittee shall maintain a daily record of the staff gage reading and stream flow as determined from the established rating curve for the duration of this authorization. A copy of this record shall be included in the Annual Report to the Commissioner required by Special Condition #8 of this permit.
6. **Record Keeping Requirements.** Except as provided below, or as otherwise specified in writing by the commissioner, all information required under this permit shall be retained at the subject site, or be readily available on request. The permittee shall maintain a copy of this permit on site at all times. The permittee shall retain copies of all records and reports required by this permit; and records of all data used to compile these reports for a period of at least ten years from the date such data was generated or report created, whichever is later.
7. **Recording and Reporting Violations.** Within 48 hours after the permittee learns of a violation of this permit, the permittee shall report the violation in writing to the Commissioner. The report shall be certified in accordance with General Condition #11 of this permit and shall include the following information:
 - a. The provision(s) of this permit that has been violated;
 - b. The date and time the violation(s) was first discovered and by whom;
 - c. The cause of the violation(s), if known;
 - d. If the violation(s) has ceased, the duration of the violation(s) and the exact date(s) and time(s) it was corrected;
 - e. If the violation(s) has not ceased, the anticipated date when it will be corrected;
 - f. Actions taken and actions planned to prevent a reoccurrence of the violation(s) and

the date(s) such steps were implemented or will be implemented.

8. **Annual Report.** The permittee shall submit by January 15 of each year, for the duration of this authorization, an Annual Report for the preceding calendar year. The Annual Report shall be certified in accordance with General Condition #11 of this permit and shall contain the following:
- a. A copy of the record of daily withdrawals as required by Special Condition #2 of this permit,
 - b. A copy of the leak detection report as required by Special Condition #3 of this permit, and
 - c. Summary report of all the actions taken pursuant to the Water Conservation Plan and a description of actual or estimated water savings achieved, as required by Special Condition #4 of this permit, and
 - d. A copy of the record of daily staff gage readings and stream flow as required by Special Condition #5, and
 - e. Denotation and explanation of any instances of violation of the authorized withdrawal limitation(s) or any other condition of this authorization as required by Special Condition #7.

GENERAL CONDITIONS

1. The permittee shall notify the Commissioner in writing two weeks prior to: (A) commencing construction or modification of structures or facilities authorized herein; and (B) initiating the diversion authorized herein.
2. The permittee may not make any alterations, except de minimis alterations, to any structure, facility, or activity authorized by this permit unless the permittee applies for and receives a modification of this permit in accordance with the provisions of section 22a-377(c)-2 of the Regulations of Connecticut State Agencies. Except as authorized by subdivision (5) of section 22a-377(b)-1(a) of the Regulations of Connecticut State Agencies, the permittee may not make any de minimis alterations to any structure, facility, or activity authorized by this permit without written permission from the Commissioner. A de minimis alteration means an alteration which does not significantly increase the quantity of water diverted or significantly change the capacity to divert water.
3. All structures, facilities, or activities constructed, maintained, or conducted pursuant hereto shall be consistent with the terms and conditions of this permit, and any structure, facility or activity not specifically authorized by this permit, or exempted pursuant to section 22a-377 of the General Statutes or section 22a-377(b)-1 of the Regulations of Connecticut State

Agencies, shall constitute a violation hereof which may result in modification, revocation or suspension of this permit or in the institution of other legal proceedings to enforce its terms and conditions.

4. Unless the permittee maintains in optimal condition any structures or facilities authorized by this permit, the permittee shall remove such structures and facilities and restore the affected waters to their condition prior to construction of such structures or facilities.
5. In issuing this permit, the Commissioner has relied on information provided by the permittee. If such information was false, incomplete, or misleading, this permit may be modified, suspended or revoked and the permittee may be subject to any other remedies or penalties provided by law.
6. If construction of any structures or facilities authorized herein is not completed within three years of issuance of this permit or within such other time as may be provided by this permit, or if any activity authorized herein is not commenced within three years of issuance of this permit or within such other time as may be provided by this permit, this permit shall expire three years after issuance or at the end of such other time.
7. This permit is subject to and does not derogate any rights or powers of the State of Connecticut, conveys no property rights or exclusive privileges, and is subject to all public and private rights and to all applicable federal, state, and local law. In constructing or maintaining any structure or facility or conducting any activity authorized herein, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this State. The issuance of this permit shall not create any presumption that this permit should be renewed.
7. In constructing or maintaining any structure or facility or conducting any activity authorized herein, or in removing any such structure or facility under paragraph 4 hereof, the permittee shall employ best management practices to control storm water discharges, to prevent erosion and sedimentation, and to otherwise prevent pollution of wetlands and other waters of the State. The permittee shall immediately inform the Commissioner of any adverse impact or hazard to the environment which occurs or is likely to occur as the direct result of the construction, maintenance, or conduct of structures, facilities, or activities authorized herein.
9. This permit is not transferable without the prior written consent of the Commissioner.
10. This permit shall expire on (25 years).
11. **Certification of Documents.** Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this permit shall be signed by the permittee or a responsible corporate officer of the permittee, a general partner of the

permittee, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

"I have personally examined and am familiar with the information submitted in this document and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachment may be punishable as a criminal offense in accordance with Section 22a-376 under 53a-157 of the Connecticut General Statutes."

12. **Submission of Documents.** Any document or notice required to be submitted to the Commissioner under this permit shall, unless otherwise specified in writing by the Commissioner, be directed to:

Director
DEP/Inland Water Resources Division
79 Elm Street
Hartford, CT 06106-5127

The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval on any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" as used in this permit means any calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

This authorization constitutes the permit required by section 22a-368(b) of the Connecticut General Statutes.

Issued as a permit of the Commissioner of Environmental Protection on

Amey W. Marrella
Acting Commissioner